CHAPTER 13

SUPPORTING ELEMENTS OF THE NAVY

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Identify the function of Civil Engineer Corps officers.
2. Identify the function of Supply Corps officers.
3. Identify the function and composition of the Bureau of Medicine and Surgery.
4. Identify the function of Navy chaplains.
5. Identify the function of officers of the Judge Advocate General's Corps.
6. Describe the purpose of the Navy's security program.
7. Describe the purpose of the Naval Intelligence Command.
8. Describe the organization and areas of research of the Navy's Research and Development Program.

SIGNIFICANT DATES

3 Feb. 1795	Congress establishes the Navy Supply Corps.
9 Mar. 1798	George Balfour is appointed as the first surgeon in the U.S. Navy.
30 Oct. 1799	William Balch is commissioned as the Navy's first chaplain.
26 Feb. 1811	A congressional act provides Navy hospitals.
2 Mar. 1867	Congress establishes the Civil Engineering Corps.
3 Mar. 1871	Congress establishes the Pay Corps.
9 Jun. 1880	William B. Remey, USMC, is appointed as the first Judge Advocate General.

SIGNIFICANT DATES

4 Apr. 1898	Mordecai T. Endicott, the first Civil Engineer Corps officer, is appointed Chief, Bureau of Yards and Docks.
17 Jun. 1898	The Hospital Corps is established.
13 May 1908	The Nurse Corps is established.
22 Aug. 1912	The Dental Corps is established.

Certain supporting elements and branches of the Navy are required to accomplish the Navy's mission. This chapter discusses the functions of some of these elements and various Navy branches. In many cases, the functions of these supporting elements are essential to mission accomplishment while at other times they only provide assistance for particular needs. Overall, they fit into the team concept of the naval structure.

CIVIL ENGINEER CORPS

Officers of the Civil Engineer Corps (CEC), who administer the work of the Naval Facilities Engineering Command (NAVFACENGCOM), are commissioned naval officers with special technical qualifications. They are engineers and architects who manage the Navy's shore facilities and oversee construction and maintenance by the shore establishment. Additionally, they command the field forces that construct advanced bases for support of Marine and Navy contingency operations.

The Commander of the Naval Facilities Engineering Command is the Chief of Civil Engineers (that is, the head of the Corps). The commander exercises technical direction over the naval construction forces, generally known as the Seabees. NAVFACENGCOM also supports separate activities of the Department of the Navy whose primary function is organizing and equipping the naval construct ion forces. These activities include commands and organizations such as construction battalion centers.

Recent years have seen rapid technological and management system expansion throughout the engineering world and the Department of Defense. NAVFACENGCOM has been a leader in developing advanced management systems and in adapting these systems to the latest computers. Examples include the Shore Facilities Planning and Programming System, Production Management Systems, Base Engineering Support-Technical Systems, Energy Monitoring and Control Systems, and Engineered Performance Standards. Many of these systems use minicomputers to increase effectiveness and productivity.

In the area of engineering development, NAVFACENGCOM strives to turn the most up-to-date technological advances into the basis for the efficient, economical construction of Navy shore facilities. For example, the graphics design system has been installed in the design office to provide architects and engineers with a computer-aided method of preparing plans and designs. In the field of energy conservation and development, NAVFACENGCOM emphasizes the conversion of coal, wind, geothermal resources, and solar radiation into efficient sources of energy for the Navy. Greatly concerned with environmental protection, NAVFACENGCOM encourages the use of new methods of managing hazardous and solid waste and abating all types of pollution. To manage these new technologies, NAVFACENGCOM has established the Emerging Technologies Management Office to ensure the proper research and introduction of new ideas.

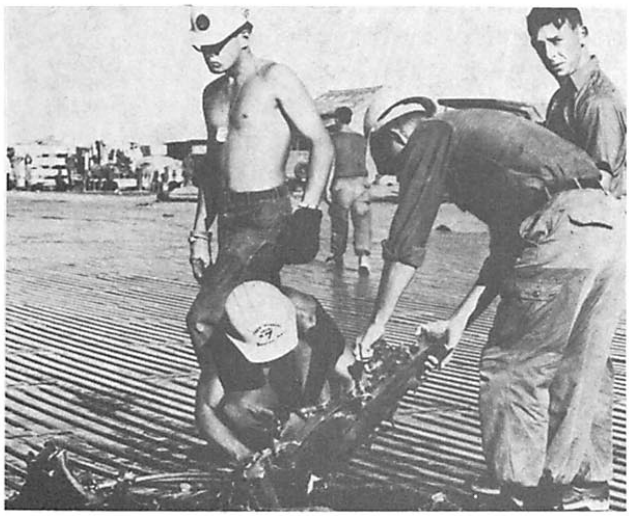
Over the last 20 years, NAVFACENGCOM and the CEC have undertaken major engineering accomplishments. The massive Vietnam construction program, which upgraded the entire infrastructure of that nation, required the efforts of CEC officers, the naval construction force, and civilian contractors alike.

The geopolitical events in the Middle East in the early 1970s emphasized the need for a military installation in the Indian Ocean. Upon being tasked, NAVFACENGCOM immediately went to work to plan the construction of a joint British-American stronghold and support facility on the strategically important Diego Garcia Island. A few years later, this tiny island had become an operational military installation complete with an airfield, pier facilities, a communications station, and total personnel support facilities.

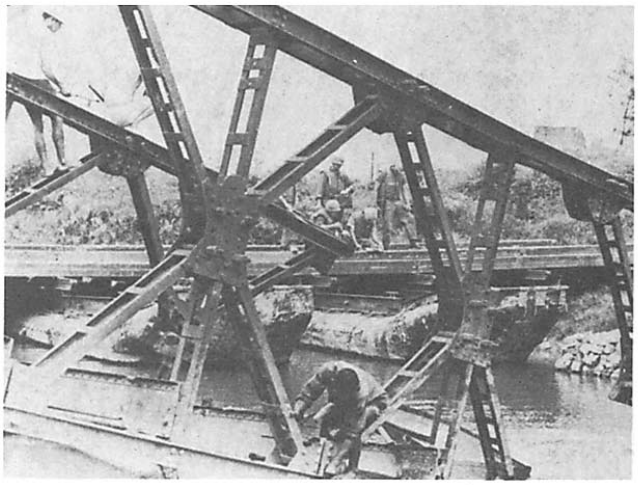
A major element of the CEC is the construction battalions (Seabees). The primary job of the Seabees is to build. However, based on the theory that they can't build unless they control the jobsite, all Seabees receive training in defensive combat tactics. Controlling the job site involves "fighting," the second job of a Seabee, as exemplified by the Seabee motto *Construimus batuimus,* meaning "We build—we fight."

Each company in a battalion organization is divided into combat platoons, squads, and fire teams. A Marine Corps gunnery sergeant is assigned as a military adviser and training specialist to the commanding officer of the battalion.

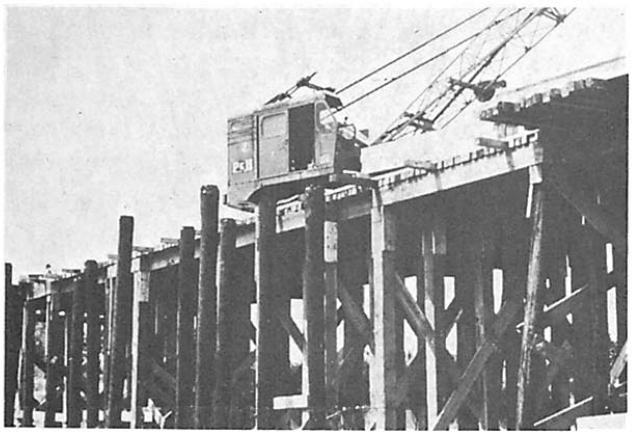
As a self-sustaining unit, a naval mobile construction battalion (NMCB) must be capable of self-defense for a limited time. Each battalion subdivision has a construction/military support assignment, and everyone in the battalion fills a construction/military support billet. The construction aspect, of course, predominates; the mission is to build. Platoons are organized into work crews that correspond to the weapons squad organization. The basic construction/military support units are the work crew/rifle fire team, work crew/automatic weapons team, and the work crew/heavy weapons team. Figure 13-1 illustrates the diversity of Seabee functions in Vietnam.



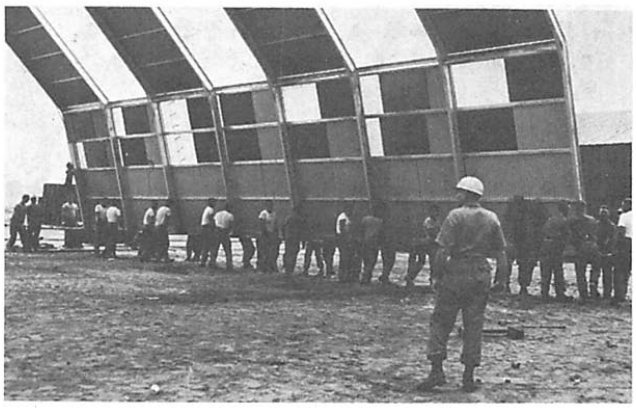
A. STEELWORKERS REMOVE ROCKET-DAMAGED STEEL MATTING FROM AN AIRFIELD PARKING APRON.



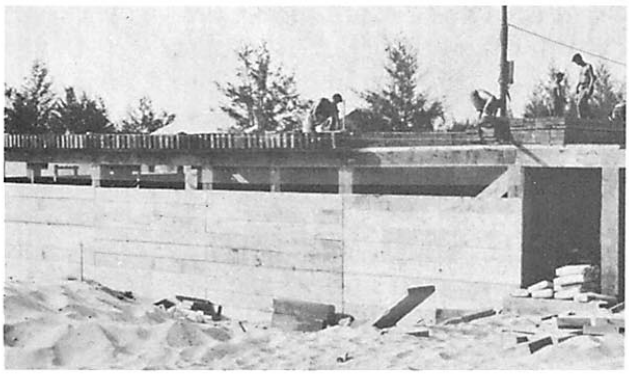
B. BRIDGE EXPERTS SURVEY VIET CONG-BLOWN BRIDGE.



C. UNITS OF AN NMCB CONSTRUCTING A BRIDGE.



D. ERECTING A HANGAR FOR THE MARINES.



E. WORKING ON A CANTONMENT FOR ROK TROOPS.

F. PERIMETER PATROL RETURNING TO BASE.

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Figure 13-1.-All construction battalions were committed to Vietnam. More than 50 percent of those in the country were, or had been, engaged in providing tactical support construction to United States and Allied forces under fire.

THE SUPPLY CORPS

The problem of logistics in any future war, except limited conflicts, would exceed anything our nation has so far witnessed. The extent of total conflict would probably be such that we would have to mobilize all of our economic resources to engage the enemy successfully. While today's situation is entirely different from that faced by John Paul Jones, the basic logistics are the same as they were in Jones' time. In arming, supplying, and manning his ships, Jones went through the same processes of determination of requirements, procurement, and distribution that are used today. However, his problem was not as extensive, and he probably didn't think of it in such formal terms.

The determination of requirements is the first step in the formation of any logistics plan. It is a military responsibility and prerogative involving strategy and tactics. It encompasses determination of requirements for the conduct of global war as well as the determination of requirements for a small task unit engaged in a minor operation.

The next step is procurement. It is based upon the determination of requirements, the production sources available, and those sources to be developed. In many respects it may be thought of as the point or zone of contact between the armed forces and the civilian economy. It is primarily controlled by the civilian element of the defense structure. Thus, while elements of the Navy Department may undertake the actual details of procurement, they do so under policies prescribed by and under the watchful eyes of the Secretary of the Navy and his civilian assistants.

Distribution, the last step of the logistics process, starts with accumulation at continental depots and ends with delivery to the ultimate consumer. The responsibility for distribution of goods in the Navy rests on the shoulders of Supply Corps officers.

Officers of the Supply Corps are the Navy's business administrators. As such, they direct the Navy's logistics requirements as set forth by the Chief of Naval Operations. They make sure these requirements are provided efficiently and economically to ships and activities around the world. They manage a supply system that furnishes well over a million items essential to the operations of ships, missiles, aircraft, and facilities. In addition, Supply Corps officers disburse pay and allowances of Navy personnel and manage the operation of food service, ship's store, and Navy Exchange facilities.

Supply Corps officers serve in varying duty assignments, ranging from supply officer aboard a destroyer to Commander of the Naval Supply Systems Command. (The Commander of the Naval Supply Systems Command is a rear admiral who also serves as the Chief of the Supply Corps.) The Naval Supply Systems Command is responsible for overall management of the Supply Corps ashore and afloat. Disbursing and certain other comptroller billets to which Supply Corps officers may be assigned are under the management of the Navy.

Afloat supply officers manage the procurement, receipt, custody, stowage, and expenditure of material for ship's use as well as food service and ship's store operations. They maintain stock records and inventory control and supervise payment of the crew. Ashore billets manage requisitioning and local procurement, contract purchasing, and material inspection and receipt. They are in charge of stock management at field supply points, supply systems management, stowage and materials handling, and financial management.

Current Corps strength is about 4,500 officers, 50 percent of whom serve afloat and overseas. The Naval Reserve Officer Training Corps program serves as the main source of Supply Corps officer input. The Naval Academy, Officer Candidate School, the Limited Duty Officer Program, and line officer transfers also supply the corps with officers. While not officially members of the Supply Corps, about 300 chief warrant officers serve in the technical specialty of supply clerk. Supply clerks are assigned to Supply Corps billets both afloat and ashore.

Newly commissioned Supply Corps officers, including line transferees and newly appointed chief warrant supply clerks, are sent to the Navy Supply Corps School, Athens, Georgia. They receive 26 weeks of intensive training in Basic Supply Management and instruction in a wide range of sophisticated management techniques, including automatic data processing. Upon completing the course, most corps officers receive assignments to afloat billets followed by tours ashore in the continental United States (CONUS) and overseas. By their third tour, typical Supply Corps officers are expected to develop a functional proficiency in one field. The field may be clothing and textiles, financial management, fuel distribution, merchandising, procurement, subsistence technology, system inventory management, or transportation management.

Courses in Navy Exchange Management (6 weeks) and Commissary Store Management (4 weeks) are conducted several times yearly at the Navy Resale and Services Supply Office, Brooklyn, New York. A 6-month course in Transportation Management conducted at the Naval Supply Center, Oakland, California, covers material on terminal operations and stevedoring, traffic management, and warehousing. Supply Corps officers may also attend other courses of varying length conducted at both military and civilian facilities. Course subjects may range from petroleum storage to computer systems.

Development of a functional proficiency in no way detracts from the overall opportunity of supply officers to upgrade their professional qualifications as a naval officer. Each year approximately 100 Supply Corps officers are selected for postgraduate training at military and civilian institutions, some at the doctorate level. Studies range from logistics and management sciences to law and personnel administration. Long-range plans for Supply Corps officers involve their service as technoeconomists skilled in the mathematical sciences, analytical methods, and behavioral sciences essential to future Navy operations.

BUREAU OF MEDICINE AND SURGERY (BUMED)

The Bureau of Medicine and Surgery (BUMED) directs the worldwide medical and dental services and facilities maintained by the Department of the Navy. The mission of BUMED within the national defense structure of the United States is to safeguard the health of Navy and Marine Corps personnel in the following areas:

- Care and treatment of sick and injured members of the naval service and their dependents
- Training programs for BUMED personnel
- Continuing programs of medical and dental research
- Prevention and control of diseases and injuries
- Promotion of physical fitness of members in the naval service
- Care for on-the-job injuries and illnesses of civilian employees
- Supervision of the care and preparation for shipment and interment of deceased military members and of civilian personnel for whom the Navy is responsible

BUMED is headed by the Surgeon General of the Navy, who serves as Chief of BUMED. The Chief of BUMED promotes quality health care for the patient and professional responsibility for the patient's well being. BUMED performs budget formulation; provides manpower, facilities, and material; establishes clinical standards; and assures total quality management.

The first naval hospital was opened in Portsmouth, Virginia, in 1830. In its earliest days, the hospital was limited to a medical staff of five men and very little equipment. The steady progress made in the naval hospitalization system since 1830 has kept pace with the rapid strides made in civilian hospital services and medical education. Today, the Navy operates over 30 hospitals in the United States (4 of which are teaching hospitals) and over 100 medical clinics.

A naval hospital provides relatively full diagnostic and therapeutic services together with bed care, nursing, and dietetic services. Because accessibility and capacity to serve the operating forces are prime site considerations, most hospitals are located along the coastal states. Station hospitals can offer extended care to patients, but they are smaller and more limited in scope. A medical center provides temporary in-patient treatment for those personnel with a favorable prognosis for early release. A clinic is designed mainly to provide examination and treatment for ambulatory patients and first aid for emergency cases.

Aboard ship, the scope of medical facilities depends upon the complement of medical personnel, available space and equipment, capability of the staff, and mission of the ship. Facilities thus range from the scantily furnished sick bay of a destroyer to one that is fully equipped aboard a carrier. Personnel assigned vary from 2 hospital corpsmen on a destroyer (the senior corpsman being specially trained for independent duty) to perhaps 40 or 50 officers and hospital corpsmen on aircraft carriers.

To meet the demand of Navy health care, over 3,900 physicians, 3,100 nurses, and 2,600 Medical Service Corps officers serve in the Navy. Other personnel who provide medical assistance include

dentists, physician's assistants, hospital corpsmen, and dental technicians, as well as a large number of civilians.

THE CHAPLAIN CORPS

The Constitution of the United States guarantees "free exercise of religion" to all its citizens. However, military personnel often find themselves stationed far from their traditional religious communities. Therefore, Congress authorized the establishment of the Navy Chaplain Corps to provide for the religious needs of personnel of the Navy, Marine Corps, and Coast Guard. Commanding officers have the responsibility to ensure this constitutional right for each person in their command. Navy chaplains are accountable to their commanding officers for the pastoral care of personnel of all faiths.

Though commissioned as an officer, the chaplain is first ordained as a member of the clergy in one of the religious bodies of the country. The wearing of the naval uniform is believed to enhance the chaplain's effectiveness in ministering within and to the military organization. The uniform, itself, indicates the chaplain's responsibility to the naval service and the Nation. The insignia worn, the Cross or the Tablets of the Law, identifies a person as a chaplain. It also emphasizes the chaplain's responsibility to church and spiritual values.

Standards for appointment as a chaplain are high. Each appointee must be physically qualified. Each must have completed at least 120 semester hours of undergraduate study in an accredited college or university and a minimum of 90 semester hours in an approved theological school. Before the appointment can be made, the chaplain must be duly ordained and provided with an ecclesiastical endorsement by his or her own church.

As religious leaders, chaplains advise the commanding officer on all matters pertaining to the moral, spiritual, and religious welfare of Navy, Marine Corps, and Coast Guard personnel. Chaplains always conduct divine services according to the customs, traditions, and regulations of their own church. Frequently called upon to provide religious services for those of other faiths, however, they must minister to the needs of people of all faiths. Their responsibilities include inviting appropriate clergy aboard, training lay readers, and providing proper material and ecclesiastical support. Each chaplain should use ideas, techniques, and methods that will help all command personnel grow spiritually and develop good character.

Navy chaplains have long upheld the tradition of ensuring free exercise of religion by providing moral and spiritual support and guidance. Often chaplains devote the bulk of their efforts to pastoral care and pastoral counseling. In giving pastoral care, chaplains try to reflect the heart of God in their actions. They serve as agents through which God imparts healing, spiritual renewal, and unconditional love. In pastoral counseling, chaplains help personnel resolve domestic problems as well as personal issues and crises. In addition, chaplains conduct regular worship services; provide religious educational opportunities; and perform baptisms, confirmations, marriages, and other sacraments and ordinances.

Chaplains serve at sea on a normal rotational basis. Some are assigned directly to ships' companies. Others become "circuit riders" who meet the needs of those on small ships and stations or at widely dispersed units. For example, a chaplain assigned to minister to destroyer personnel will serve many ships operating over great distances. Over 50 percent of the Navy chaplains are assigned to sea or overseas billets. In addition, Navy chaplains serve major tactical and support units of the U.S. Marine Corps. Approximately 20 percent of the total number of active-duty chaplains are attached to Marine Corps units at any given time. Ashore, three or more chaplains may be assigned to larger Navy, Marine Corps, and Coast Guard stations. Many of these stations have well-equipped chapels and educational facilities (fig. 13-2).

Chaplains serve in commissioned grades from lieutenant (junior grade) through captain. Their promotions are based on the same precepts and regulations governing all other naval officer promotions. The Chaplain Corps is directed by the Chief of Chaplains, a rear admiral.

JUDGE ADVOCATE GENERAL'S CORPS

The American Fleet was authorized in 1775, and the Department of the Navy was established by an act of Congress in 1798. However, the Navy had no official legal counsel until well into the 19th century.

In 1864, because of contract frauds arising under Civil War naval programs, Secretary of the Navy Gideon Welles created the position of Solicitor for the Navy Department. The quickly

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Figure 13-2.-On the naval base at Norfolk, Virginia, are the chapels of three faiths under one roof. To the left is the Protestant chapel; to the right, the Catholic chapel; and connecting the two, the Jewish chapel.

proven value of the Solicitor's function moved Secretary Welles to request legislative ratification of the new legal office. By the act of 2 March 1865, Congress established the Office of Solicitor and Naval Judge Advocate.

The act of Congress on 8 June 1880 established the Office of the Judge Advocate General of the Navy as we know it today. This legislation placed upon the Judge Advocate General the duty to "receive, revise, and have recorded the proceedings of all courts-martial, courts of inquiry, and boards for the examination of officers for retirement and promotion in the naval service, and to perform such other duties as have heretofore been performed by the Solicitor and Naval Judge Advocate General." The Judge Advocate General was given cognizance over all legal matters, of whatever kind, that affected the interest of the Navy.

Before World War II, Navy lawyers were usually line officers with legal training. Their tours of legal duty, usually in the Office of the Judge Advocate General, alternated with tours of line duty at sea. During the war, many lawyers served in both line and legal functions throughout the world.

The idea of organizing the Navy's uniformed lawyers into a distinctive professional group performing only legal functions was first considered a number of years ago. In 1945 the Secretary of the Navy convened the McGuire Committee, chaired by Matthew F. McGuire, a prominent civilian lawyer. The committee examined court-martial procedures under the Articles for the Government of the Navy. The committee's November 1945 report to the Secretary formally recommended the establishment of a Judge Advocate General's Corps in which officers would perform legal duties only.

The recommendation of the McGuire Committee prompted Secretary of the Navy James V. Forrestal to appoint a board to look further into the question. Headed by Arthur A. Ballantine of the New York Bar, the board finished its report in April 1946. The report concluded that World War II had proven beyond all question the need for a large number of lawyers to perform legal duties on a continuous basis. However, it

recommended the creation of a "law specialist" category in the restricted line. The report concluded that this category would benefit the Navy more than the creation of a JAG corps. Authorized to procure 300 lawyers in June 1946, the Navy began the Law Specialist Program.

Until late 1967 many unsuccessful attempts to establish a JAG Corps were made. At that time a subcommittee of the House Armed Services Committee scheduled a hearing on provisions for the establishment of a JAG Corps in the Navy. The Judge Advocate General of the Navy presented convincing testimony at the hearing. His testimony showed that membership in a legal corps would give the Navy lawyer a sense of professional identity and provide a potent career incentive.

The proposed legislation made the full course from subcommittee hearings through a receptive Congress to final passage within a little more than 2 months. On 8 December 1967 President Johnson signed Public Law 90-179, which established the JAG Corps as a staff corps of the Navy.

Military justice is only one of the many areas of responsibility y handled by Navy lawyers. Judge advocates provide legal advice in the fields of international law, admiralty, administrative law, claims litigation, and investigations. They also provide legal services to service members and their dependents in areas such as taxation, promotions, and retirement.

Activity in these fields and in military justice is constantly expanding and changing. The largest change, concerning expanded rights to military people, occurred with passage of the Military Justice Act of 1968. This act expanded the rights of the accused" to receive legal counsel before special courts-martial. It also inaugurated the use of military judges to preside over special courts-martial.

JAG Corps members serve in the offices of the Secretary of Defense; Secretary of the Navy; Chief of Naval Operations; and the Chief of Naval Personnel. Other offices in which they serve include the Bureau of Medicine and Surgery, Chief of Naval Research, Comptroller of the Navy, and the Joint Chiefs of Staff.

Additionally, Judge advocates are assigned to the staffs of the Navy's various area coordinators to handle legal work generated within that area. Locally, they serve on the staffs of fleet, force, and type commanders and at many naval bases, stations, and schools.

Since 1969 the JAG Corps has been organized into four basic components: the Office of the Judge Advocate General, staff and activity judge advocates, law centers, and a training component. Under that organizational structure, the corps experienced problems in personnel distribution, uniformity of funding and support, and standardization of operations. These problems impeded the corps' efforts to give the best service it could provide.

Following an extensive study of the problems, the Naval Legal Service was established in 1973. Its mission was to control the legal services program and provide command direction for all Naval Legal Service activities and resources assigned. It was also to perform other functions or tasks related to the Naval Legal Service as directed by the Chief of Naval Operations. Headquartered in Washington, the Naval Legal Service was authorized 18 offices and 15 branch offices throughout the world.

Technically, Naval Legal Service offices serve as legal service centers in areas that have a major concentration of naval activities. Within the limits of strength authorizations, these offices provide a full array of legal services to commands that have no judge advocate assigned. A primary purpose of the establishment of the Naval Legal Service was to bring all trial and defense counsels under the direct authority of the Judge Advocate General. This step made the Naval Legal Service independent of court-martial convening authorities.

Even though it is a relatively new organization, the Navy JAG Corps continues to expand. The passage of legislation by Congress and the increased need for legal services by Navy members result in increased responsibilities for the JAG Corps.

SECURITY

Although not in the same vein as some of the supporting elements previously discussed, the Navy's Security program helps to prevent the disclosure of sensitive information. It deserves careful attention by all naval personnel.

The word *security,* like many other words, has several meanings. Expressed simply, for naval purposes, SECURITY = PROTECTING CLASSIFIED INFORMATION. Security requires active Navy support of Presidential Executive Order 12356 governing classifying and safeguarding national security information.

Classified information takes several forms. It includes paper documents, automatic data processing (ADP) storage media, telephone conversations, microforms, circuit boards in equipment, and hardware configuration briefing charts. Regardless of the form, however, the President directs that official information shall be classified if its unauthorized disclosure can reasonably be expected to cause damage to the national security.

The Navy's objective of protecting classified information requires several actions. Of these actions, the following are some of the most important:

- Clearing military and civilian personnel for access to classified information (personnel security)
- Ensuring that people know security rules (security education and training)
- Identifying what specific information must be classified (classification management)
- Notifying users how to protect classified information (marking)
- Keeping track of classified information (accounting and control)
- Preventing unauthorized access to classified information (physical security)
- Providing a secure environment for electronic processing of classified information and data (ADP security)

Information that requires protection in the interest of national security is classified into three categories. These categories, in descending order of importance, are Top Secret, Secret, or Confidential. A Top Secret classification is applied to information that, after unauthorized disclosure, could be expected to cause exceptionally grave damage to the national security. Secret applies to information that could cause serious damage to the national security. Confidential applies to that which could cause identifiable damage.

Official information and data generated and used by the Navy are released to the public in large quantities. Classified Navy information, however, must undergo careful screening to be declassified or to have sensitive portions removed before it can be considered for such release. The President has determined that designated Navy officials may classify information only if it falls under one of 10 categories:

1. Military plans, weapons, or operations (e.g., Navy plans to help rescue U.S. citizens captured by terrorists)
2. Vulnerabilities or capabilities of systems, installations, projects, or plans relating to the national security (e.g., the range of a new missile)
3. Foreign government information (e.g., Canadian secrets shared with the United States with the understanding that they will be protected)
4. Intelligence activities (including special activities) or intelligence sources or methods (e.g., explanation of classified satellite photographs of Soviet weapons)
5. Foreign relations or foreign activities of the United States (e.g., U.S. policy for dealing with Soviet requests to purchase grain while arms negotiations are under way)
6. Scientific, technological, or economic matters relating to the national security (e.g., research on certain aspects of the strategic defense initiative)
7. United States government programs for safeguarding nuclear materials or facilities (e.g., not revealing information as to whether or not a ship is carrying nuclear weapons when it visits foreign ports)
8. Cryptology (e.g., machines and systems for protecting United States communications from being compromised)
9. Confidential source (e.g., names of foreign newsmen who give us secret Soviet plans for the evacuation of Afghanistan)
10. Other information related to the national security that requires protection against unauthorized disclosure as determined by a Navy original classification authority

Foreign espionage against the United States is a serious and growing concern of the Secretary of the Navy, the Chief of Naval Operations, and the Commandant of the Marine Corps. Combatting it requires informed, constant, and alert attention to procedures for safeguarding classified information by the active cooperation of every member of the Navy. The agents of hostile governments and terrorists groups have amply demonstrated their danger to the security and

future of the United States. In recent years, however, disaffected U.S. citizens entrusted with classified information, including naval personnel, have caused exceptionally grave damage to our country. Several Navy officers and chief petty officers, Navy and Marine Corps noncommissioned officers, and civilians have willfully and deliberately sold secrets to foreign governments for personal financial gain. Since 1985, the so-called "Year of the Spy," United States counterintelligence has identified, prosecuted, and convicted several active-duty and retired personnel for espionage. These espionage activities have included the following acts of betrayal:

- Information sold to the Soviet Union by a recent family network of spies provided the Soviets with U.S. Navy communications and antisubmarine operational tactics. Subsequently, the Soviets arranged to obtain, through a foreign manufacturer, restricted-technology milling equipment needed to develop more silent submarine propellers. Consequently, Soviet submarines have the technical capability to reduce their noise under water, which makes them harder to detect and locate.

- A U.S. Navy ship discovered that over 100 classified documents were missing. It then submitted a report to the Chief of Naval Operations (CNO) concluding that the documents were probably destroyed by accident without being compromised. Copies of two of the documents were later found among the 15 pounds of classified material taken by a young sailor. The sailor had planned to pass them to his father, a Soviet spy for almost two decades. Father and son were sent to prison.

- A second class petty officer, with a security clearance, telephoned the Soviet embassy in Washington, D.C., and offered to sell classified information for $1,500. Following his conviction, he told a Navy counterintelligence official that he did this for the money.

- An active-duty chief petty officer took classified information home as personal study material. He was apprehended and charged with possible espionage.

- A Marine Corps deserter, living overseas on the charity of others, told an elaborate—but untrue—story. He claimed he worked for a Soviet KGB agent as a spy against the United States. After his arrest, the marine admitted to the Naval Investigative Service that he made up the entire story because he enjoyed the glamour of being considered a spy.

- A Navy ensign was arrested after he mailed a classified electronic warfare document and two microfilm indices of key code words to a foreign embassy in Washington, D.C. The embassy, fortunately one from a friendly government, turned the material over to U.S. authorities along with the ensign's request for payment of $50,000. Court testimony revealed that he wanted to sell the material to raise money for his girl friend in another foreign country.

- A Marine Corps private first class who deserted his guard post at a Marine weapons compound turned up at the Soviet embassy in Washington, D.C. The marine offered to sell unspecified military information for $500 to $1,000.

The United States loses thousands of pieces of classified information each year, apparently without a trace. A simple explanation may be that too many people in the Navy and Marine Corps do not follow instructions or that they ignore regulations. Some of them maybe disloyal citizens who pose a real or potential threat to the national defense. Regardless of the reason or motivation, they all make the foreign espionage agent's job easier. We may never know the full national security significance of many of these losses because we have not been effectively controlling or accounting for all classified information. Each member of the Navy must become a full partner in the costly, but necessary, efforts to keep better track of vital classified documents and equipment. Only by all hands working together can we guard our personal safety, protect the national security, and ensure the future of the United States of America.

NAVAL INTELLIGENCE

Intelligence, properly performed, can provide a foreknowledge of important information for both government and military leaders. It helps our leaders reach sound decisions that are vital to the security of a nation as well as to success in combat. It can reduce the possibility of surprise, evaluate enemy potential, and predict enemy areas of operation.

The misconception of intelligence as a mysterious, glamorous, and hazardous undertaking has been derived principally from two sources. The first has been its "cloak and dagger" treatment in popular literature; the second has been the natural reluctance of governments to disclose the inner workings oft heir intelligence organizations. Because of the critical nature of intelligence work, governments have surrounded this activity with the strictest of security regulations. Thus a void has been created in the public's image of intelligence work that has been filled by fictional versions.

While intelligence work does have its exciting moments, properly understood it is very similar to any other military staff function. Generally, it is knowledge upon which a course of action may be safely based. In its entirety, it is a vast and complex grouping of information covering a wide range of subjects. It includes closely interrelated subjects such as geography, transportation, telecommunications, sociological factors, political conditions, economic conditions, armed forces, technical developments, and biographical data. Intelligence workers can make a valid "estimate of a situation" only by considering each in its relation to the others.

Since intelligence activities have three basic purposes, they are divided into three functional segments: strategic intelligence, operational intelligence, and counterintelligence.

Strategic intelligence is used mainly by top echelons of command and top-level leaders in government as the basis for national planning and policy. That is, they use it in reaching broad decisions affecting the long-range security and welfare of a nation.

Operational intelligence helps the local commander decide what personnel and material to use against an adversary. Local commanders may use some of the strategic intelligence information for operational purposes. However, when executing a planned mission, local commanders require much more detail than strategic (long-range) planners.

Counterintelligence is designed to destroy the effectiveness of the intelligence efforts of foreign nations. For a nation to actively collect foreign intelligence about actual or potential enemies is not enough. A nation must also protect its own intelligence information from the prying eyes of other powers. Foreign intelligence is actively at work.

The term *Naval Intelligence,* when capitalized, refers to the organization, under the Commander, Naval Intelligence Command, responsible for carrying out the intelligence mission of the Navy. When not capitalized, the term *naval intelligence* refers to the material obtained, processed, and dispersed to appropriate naval authority.

A distinction exists between information and intelligence. Information is the raw material and intelligence is the finished product. Information becomes intelligence after it is evaluated.

In the United States Navy, the Chief of Naval Operations (CNO) supervises the intelligence function while the Director of Naval Intelligence (DNI) directs the total effort. The DNI carries out the responsibilities of the CNO regarding intelligence, cryptology, and security matters. The DNI is the principal staff adviser to the Secretary of the Navy and the CNO concerning plans, programming, and policy matters involving naval intelligence. The DNI also assists and advises the CNO in exercising command over the Naval Intelligence Command, the Naval Investigative Service, and the Naval Security Group Command.

The Office of Naval Intelligence maintains a relatively small staff to guide and support the functions of its headquarters. The Commander, Naval Intelligence Command (COMNAVINTCOM), controls the major portion of the functions of program management and intelligence collection, production, and dissemination. COMNAVINTCOM also serves as the Deputy Director of Naval Intelligence (DDNI) for Intelligence Production (OP-092D). The mission of COMNAVINTCOM is to ensure the Department of the Navy fulfills its security and intelligence requirements and responsibilities.

RESEARCH AND DEVELOPMENT

Because of the personnel, money, and materials involved, the research and development effort in the Department of Defense (DOD) and its military branches is big business. The scientific and military strength of the United States depends heavily on the success of a comprehensive research program.

DOD manages the research and development of all major military hardware/weapons systems. To a lesser degree, it manages scientific study in fields related to long-term national security needs. Fields of study include the engineering, environmental, biological-medical, and behavioral social sciences. DOD currently authorizes about $40 billion for research, development, test, and evaluation (RDT&E).

At the top of the Navy RDT&E organization, the Secretary of the Navy exerts policy control. The Assistant Secretary of the Navy for Research, Engineering, and Systems (ASN/RE&S) is responsible to SECNAV for management and control of Navy RDT&E matters, including monetary appropriations.

The Chief of Naval Research, who heads the Office of the Chief of Naval Research (OCNR), is a principal adviser to the ASN/RE&S. The OCNR consists of two offices: the Office of Naval Research (ONR) and the Office of Naval Technology (ONT). Responsible for the basic research programs of the Navy, ONR manages the Navy's research laboratories and ONT conducts the Navy's Exploratory Development Program.

The scope of the Navy's research programs is as broad as the Navy's working environment—from the deep ocean floor to outer space. Current and continuing long-range programs include the research of oceanography, space, advanced electronics and superconductivity, neural network computers, artificial intelligence, biotechnology, ship and aircraft design, and weapons design. Although this list could go on and on, it should give you some idea about the scope of the program.

NAVAL RESEARCH LABORATORY

The Naval Research Laboratory (NRL) at Washington, D.C., is considered to be the Navy's corporate laboratory. NRL facilities include more than 130 buildings on 129 acres of land. In their pursuit of new knowledge for the Navy and the Nation, NRL scientists use more than 15 field sites.

OCEANOGRAPHIC RESEARCH

The Navy has conducted oceanographic research since about 1946. Over the years, as the importance of this field of endeavor has grown, many segments of the government and the scientific community have become directly involved. Today, many federal agencies are involved in the Nation's oceanographic program. The oceanographer of the Navy coordinates the overall program and acts as the Navy's spokesperson on oceanography with other federal, national, and international organizations.

SHIPBUILDING

Shipbuilding begins with the ship design process. Four phases make up this process: feasibility studies, preliminary design, contract design, and detail design and construction. The process starts with a requirement for a new ship. This requirement could be for a guided-missile destroyer, a mine-hunting ship, an amphibious assault ship, or a combat logistics support ship. Feasibility studies provide alternative designs that meet the requirement. The selected alternative design is developed into the ship preliminary design. The contract design phase defines the ship performance and contractual terms so that the prospective shipbuilders can establish the cost of, and schedule for, ship construction. The shipbuilder develops the detail design used to build the ship.

The research, development, test, and evaluation program promotes the development of more capable and survivable ships at a reduced cost and with reduced manning. That is accomplished by the integration of new and emerging technologies with projected ship requirements. Test and evaluation of new projects take place in laboratories, at land-based test sites, and aboard ships. The David W. Taylor Naval Ship Research and Development Center at Bethesda, Maryland, conducts the research, development, test, and evaluation of many hull, propulsion, electrical, auxiliary, and environmental protection systems.

SURFACE WEAPONS AND WEAPONS SYSTEMS

The focal point for development of naval surface warfare weapons systems, research in ordnance technology, and support of naval strategic systems is the Naval Surface Warfare Center (NSWC). The management, technical programs, and resources of the Naval Ordnance Laboratory, White Oak, Maryland, and the Naval Weapons Laboratory, Dahlgren, Virginia, combined to form this center in 1974.

Some of the center's current programs are in the areas of surface- and air-launched missiles, fuzing, nuclear weapons effects, high-energy laser engineering, antiship missile defense, aerodynamic and hydrodynamic research, geoballistics, astronautics, and geodesy. Other capabilities include development of gun systems, torpedoes, mines, and advanced strategic weapons concepts.

Research and development activities in the weapons explosive area include the Naval

Explosives Development Engineering Department (NEDED) at the Naval Weapons Station, Yorktown, Virginia, and the Naval Ordnance Station at Indian Head, Maryland.

UNDERWATER WEAPONS AND UNDERWATER WEAPONS SYSTEMS

The Navy's main research, development, test, and evaluation activity for underwater combat systems is the Naval Underwater Systems Center (NUSC) at Newport, Rhode Island. NUSC is committed to a diversity of complex technological research programs concerning command and control systems, underwater weapons and targets, weapons launchers and tubes, underwater tracking ranges, sonar, surveillance, ocean engineering, and fleet readiness. In addition to its Newport facilities, NUSC has a major research and development laboratory complex at New London, Connecticut.

NUSC is tasked to perform research and development of torpedo-type weapons. However, the Naval Undersea Warfare Engineering Station (NUWES) at Keyport, Washington, also conducts some research and development and considerable testing and evaluation of torpedoes. In addition, NUWES, Keyport, serves as the sole proofing activity for production torpedoes. Proofing includes a series of tests that a sample of production torpedoes must pass before the torpedoes are accepted and delivered to the fleet.

NAVAL AIRCRAFT SYSTEMS

The principal field activity for the design and cradle-to-grave management of the aircraft system is the Naval Air Development Center (NADC) at Warminster, Pennsylvania. The center conducts research, development, test, and evaluation of, and life cycle support for, major naval aircraft systems. NADC was established in 1944. Its capabilities were expanded substantially in 1973 when the Naval Navigation Laboratory (NNL), formerly the Naval Strategic Systems Navigation Facility, was incorporated under NADC. Approximately 60 percent of the research and development at NNL deals with navigation for surface ships and submarines. The other 40 percent is concentrated on airborne navigational systems. NNL's current and ongoing research and development projects include ring laser gyro technology, the global positioning system, and the joint tactical information distribution system.

SHIPBOARD PERSONNEL PROTECTION

Wearing the right protective equipment is the best way for personnel to prevent injuries. Protective equipment protects personnel from weapons effects in hostile actions; from fire, smoke, and toxic effects in peacetime accidents; and from hazardous and environmental effects in the day-to-day workplace. Since the crew must be able to function under all three of these environmental conditions, wearing protective equipment limits their exposure.

The following are some items of protective equipment that have been, or are being, developed:

- The naval battle helmet, the ballistic face shield, the naval flak vest, and laser eye protection for wear during hostile actions
- The fire fighter's helmet, antiflash and antiexposure clothing, fire-retardant working clothing, and fire fighter's breathing apparatus for protection in peacetime accidents
- The auto-inflatable utility life preserver and improved clothing for both cold weather and hazardous material handling for protection against the hazardous and environmental effects in the workplace

SUMMARY

All the supporting elements of the Navy discussed in this chapter share a common thread—they all work to provide support to Navy personnel and programs.

The Civil Engineer Corps oversees the construction of our bases and facilities. The Supply Corps provides parts, equipment, and food and disburses our pay and allowances. BUMED strives to keep us healthy or return us to health if we are ill or injured. The Chaplain Corps attends to our spiritual and moral needs. The Judge Advocate General's Corps helps us with our legal problems. The Naval Security Program helps to prevent the unauthorized disclosure of our vital information. Naval Intelligence provides us with information about potential threats or enemies. And last but not least, the Research and Development Program of the Navy continues to develop and improve our equipment.

Without the services provided by these members of the Navy team-, we would not be able to accomplish the mission of the Navy. Although it is the motto of the Supply Corps, "Service to the fleet" applies to all of these elements.

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SCUTTLEBUTT

THE ORIGIN OF THE WORD "SCUTTLE BUTT," WHICH IS NAUTICAL PARLANCE FOR A RUMOR, COMES FROM A COMBINATION OF "SCUTTLE, " TO MAKE A HOLE IN THE SHIP'S SIDE CAUSING HER TO SINK, AND "BUTT," A CASK OR HOGSHEAD USED IN THE DAYS OF WOODEN SHIPS TO HOLD DRINKING WATER; THUS THE TERM "SCUTTLEBUTT" MEANS A CASK WITH A HOLE IN IT. "SCUTTLE" DESCRIBES WHAT MOST RUMORS ACCOMPLISH, IF NOT TO THE SHIP, AT LEAST TO MORALE. "BUTT" DESCRIBES THE WATER CASK WHERE MEN NATURALLY CONGREGATED, AND THAT'S WHERE MOST RUMORS GET STARTED. THE TERMS "GALLEY YARN" AND "MESS DECK INTELLIGENCE" ALSO MEAN THE SPREADING OF RUMORS AND MANY, OF COURSE, START ON THE MESS DECK.